

REMARKS

Careful reconsideration of the present application in view of the present response is respectfully requested. Claims 1, 13, 18, 21, 28, 32, 40, 41 and 46-48 are amended. No new matter is added by the amendments. Support for the amendments may be found throughout the specification, for example, in paragraphs [0034] and [0058].

Thus, claims 1, 4, 5, 8-28, 31-35, 40-42 and 46-48 are pending in the present application. Applicants respectfully submit claims 1, 4, 5, 8-28, 31-35, 40-42 and 46-48 for reconsideration.

Rejection under Section 112, Second Paragraph

Claims 1, 4, 5, 8-28, 32-35 and 41 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants note that the present application has been pending for almost 7 years and this is the first time the issue of indefiniteness of the claims has been raised. Thus, applicants submit that the claims are in proper form according to U.S. patent practice, but solely to further prosecution, applicants amend the claims to remove the term “approximately” from the claims and correct the dependency of claim 13.

Based on the foregoing amendments, applicants respectfully request that the indefiniteness rejection be withdrawn.

Rejections Under Section 103(a)

Claims 1, 4, 9, 11, 15-17, 21, 24-28 and 31-33 stand rejected under 35 U.S.C. § 103(a), as allegedly being unpatentable over U.S. Patent Application Publication No. 2003/0160231 (Cole et al.) in view of

Great Britain Patent Application Publication No. 2,365,966 (Hodgkinson). Claims 5, 10, 12, 14, 34 and 35 stand rejected under 35 U.S.C. § 103(a), as allegedly being unpatentable over Cole in view of Hodgkinson, and further in view of U.S. Patent No. 5,617,205 (Dou et al.) and U.S. Patent Application Publication No. 2002/0022766 (Adachi). Claim 18 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Cole in view of Hodgkinson, and further in view of U.S. Patent No. 5,781,289 (Sabsabi et al). Claims 19-20 stand rejected under 35 U.S.C. § 103(a), as allegedly being unpatentable over Cole in view of Hodgkinson and Dou. Claims 22, 23 and 27 stand rejected under 35 U.S.C. § 103(a), as allegedly being unpatentable over Cole in view of Hodgkinson and further in view of U.S. Patent No. 3,920,336 (Sackett).

Claims 40, 42 and 46-48 stand rejected under 35 U.S.C. § 103(a), as allegedly being unpatentable over Cole in view of Hodgkinson, Sackett, and Dou. Claim 41 stands rejected under 35 U.S.C. § 103(a), as allegedly being unpatentable over Cole in view of Hodgkinson, Sackett, Dou and Sabsabi.

These rejections are most respectfully traversed. Applicants respectfully submit that the cited references, either alone or in combination, fail to disclose or suggest all the features of any of the pending claims.

Claims 1, 28 and 32

The Office Action rejects independent claims 1, 28 and 32 as allegedly being obvious over Cole in view of Hodgkinson. Applicants respectfully disagree.

Claims 1 and 32 recite “an analysis module for applying an algorithm to acquired sample data of the induced fluorescent energy and for matching said sample data of the induced fluorescent ultraviolet energy against a previously determined signature spectrum.” Claim 28

recites “applying an algorithm to sample data of the induced fluorescent energy to manipulate the sample data.” The cited references, either alone or in combination, fail to disclose or suggest these features of the independent claims.

The Office Action asserts that Cole teaches “an analysis module capable of matching the induced fluorescence to a predetermined signature spectrum (0037).” Cole relates to a dual wavelength detector. Cole describes a sensor having two photodiodes sensitive to different wavelengths. The photodiodes are formed of various combinations of materials, the proportions of which are modified to change the wavelength they absorb. Cole describes using an in-band source 510 to illuminate a sample 520. The fluorescence given off is directed to filters 112 and detectors 114. Detectors 114 detect the signature, which is compared to identified substance signatures.

Cole, however, fails to disclose or suggest applying an algorithm to acquired sample data of the induced fluorescent energy. The algorithm of the disclosed embodiments places the data in better form for the matching process to determine the identity of the substance. Cole does not apply an algorithm to manipulate the received fluorescence data in any manner. In fact, Cole fails to disclose or suggest the matching being done automatically, such as in an analysis module. Instead, the fluorescence signature visually is compared by an operator.

Thus, Cole fails to disclose or suggest these features of claim 1, 28 and 32. Hodgkinson also fails to disclose or suggest these features. Hodgkinson relates to a method and an apparatus for detecting chemical contamination. Hodgkinson uses a spectrometer to analyze received spectral data and then compares this against known spectral emissions to determine whether PCBs are present. Hodgkinson, however, does not apply an algorithm to the spectral data and does not manipulate the data in any way before a comparison for identification. Thus, Hodgkinson

fails to disclose or suggest those features of the claims missing from Cole.

Applicants note that the Office Action concedes that Cole and Hodgkinson “[do] not teach the input optic as an F/2 lens having a diameter over 1 meter.” The Office Action, however, then alleges that “specifying a specific size and diameter lens would have been an obvious matter of design choice.” Applicants note that these same features were allowable in the previous Actions issued over 3 years ago.

The current Office Action does not apply any new references to these claims in its new rejections, or cite new case law to support its rejection. Applicants placed the current claims in condition for allowance based on previous indications of allowability almost three years ago that are now deemed matters of design choice. Thus, applicants respectfully submit that claims 1, 28 and 32 are not obvious for the following reasons.

Cole does not disclose or suggest an input optic having these features. Cole describes filters directing spectrum data to the detectors. The filters are not input optics, as claimed. The filters do not direct, as a mirror, the induced fluorescent energy to the detectors. Thus, applicants submit that Cole does not disclose or suggest these features of the claims.

Further, applicants submit that the claimed dimensions are not aesthetic design changes or mere ornamentation. Instead, the limitations of the input optics result in a detector that is distinct from the detector in Cole. MPEP 2144.04. Thus, for at least these reasons, applicants submit that Cole and Hodgkinson fail to disclose or suggest these features of independent claims 1, 28 and 32.

Claims 40 and 46-48

Claims 40 and 46-48 are the other independent claims pending in the application. These claims also recite “an analysis module for applying an algorithm to acquired sample data of the induced fluorescent energy and for matching said sample data of the induced fluorescent ultraviolet energy against a previously determined signature spectrum.” As discussed above, Cole and Hodgkinson fail to disclose or suggest this feature of the independent claims. The references of Sackett and Duo also fail to disclose or suggest these features missing from Cole and Hodgkinson.

Sackett relates to a system for intensification of weak absorption and collection of weak light emission. Sackett describes a cavity having a highly reflective coating that has an entry port for light and a port for a detecting instrument. Sackett, however, fails to disclose or suggest an analysis module, as claimed, or applying an algorithm in any form in performing these operations.

Duo relates to a spectral measuring method and a spectral measuring apparatus. Duo describes excitation light from a light source is divided a sample beam and a correction beam by a half mirror. The sample beam results in a target light. The detected value of the target light is corrected by a simultaneously detected intensity of the correction beam. Duo, however, does not disclose or suggest using an analysis module or applying an algorithm in performing these operations.

Applicants submit that Sackett and Duo fail to disclose or suggest those features of the claims missing from Cole and Hodgkinson. For at least these reasons, applicants maintain that claims 40 and 46-48 are not rendered obvious.

Dependent Claims

The remaining claims depend from independent claims 1, 28, 32, 40 and 46-48. The dependent claims are distinguishable over the multitude of cited references for the same reasons as the independent claims. In short, none of the cited references, either alone or in combination, recite “an analysis module for applying an algorithm to acquired sample data of the induced fluorescent energy and for matching said sample data of the induced fluorescent ultraviolet energy against a previously determined signature spectrum.”

The dependent claims, due to their dependency on the independent claims, also include these features. Thus, all claims pending in the present application are not rendered obvious.

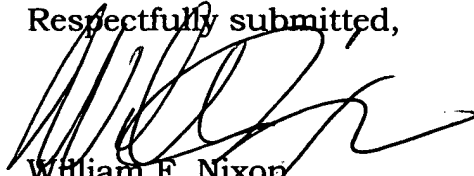
In view of these remarks, applicants respectfully submit that the cited references fail to disclose or suggest all the features of claims 1, 4, 5, 8-28, 31-35, 40-42 and 46-48. Applicants request that the obviousness rejections of these claims be withdrawn.

Concluding Remarks:

Applicant respectfully submits that all issues raised in the Office Action have been addressed and resolved. Claims 1, 4, 5, 8-28, 31-35, 40-42 and 46-48 are not rendered obvious by the cited references.

If the Examiner desires to discuss any aspect of this application in the interest of expediting prosecution, the Examiner is encouraged to contact the undersigned. Applicants respectfully request a one month extension of time for responding to the Office Action and attach a check for the applicable fee.

Respectfully submitted,



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